

ABSTRACT

[0049] Predictions of congestion conditions for a traffic stream in a communication network are applied to modify an initial congestion window size for the traffic stream; and dynamic bandwidth control is thereafter applied to the traffic stream. This dynamic bandwidth control may include modulating inter-packet bandwidths of the traffic stream according to a capacity of a bottleneck in a communication path through which the traffic stream passes in the communication network. The predictions of congestion conditions may be based on monitoring packet losses and/or round trip times within the communication network for a selected period of time. The monitoring may be performed on at least one of a traffic stream-by traffic stream basis, a connection-by-connection basis, a link-by-link basis, or a destination-by-destination basis.